

VI. Installation of the Cauvery Power Scheme, 1919 (S)

READ—

Letter No. H. 19404-350, dated 15th February 1919, from the Chief Electrical Engineer, submitting for sanction a modified estimate amounting to Rs. 32,92,000 (in round figures) for the VI. Installation of the Cauvery Power Scheme.

2. Notes by the Public Works Secretary, ending with No. C. P. S. 119, dated 30th May 1919, recommending sanction to the estimate submitted by the Chief Electrical Engineer.

ORDER NO. E. D. S. 141-3, DATED 20TH AUGUST 1919.

Ever since the inception of the Cauvery Power Scheme, the demand for power has been uniformly increasing, and to cope with it, fresh additions have been made to the generating plant from time to time.

2. There are at present 15 units at the generating station with a capacity of 22,650 H. P., as per details given below:

11 of 1,150 H. P.	12,650 H. P.
3 of 2,000 H. P.	6,000 H. P.
1 of 4,000 H. P.	4,000 H. P.

Total ... 22,650 H. P.

The power actually generated is, however, 21,500 H. P., as one unit of 1150 H. P. is always kept in reserve.

3 The aggregate demand on the generating station during the year 1917-18 was 19,230 H. P. The Mining Companies on the Kolar Gold Fields have now notified that the power supply to them should be further increased by 2,500 H. P. They also require an additional block of 3,200 H. P. for hoisting purposes and for intermittent power supply. Another 2,000 H. P. is required to be provided for industrial purposes in Bangalore and Mysore Cities. The total demand in the immediate future is, therefore, expected to increase to 27,000 H. P. roughly.

4. But the power actually generated at present is only 21,500 H. P. To maintain a constant supply of this amount, there is the immediate need to replace the 11 small turbines with new Francis turbines and to duplicate the low tension busses, as they are obsolete and have served out their time, their efficiency being affected considerably. The cost of reconstructing the 11 turbines and maintaining them on a level of efficiency and of duplicating the busses, including the extension of the step-up transformer house, is estimated at Rs. 13,63,400.

5. The scheme under consideration is designed to meet the prospective demand by increasing the capacity of the generating station from 22,650 to 27,000 H. P. net, with a spare capacity of 3,600 H. P. This is proposed to be effected by remodelling the generating station and replacing the 11 units of 1,150 H. P. each, as shown below:—

5 units of 4,000 H. P.	20,000 H. P.
3 units of 2,000 H. P.	6,000 H. P.
4 units of 1,150 H. P.	4,600 H. P.

Total ... 30,600 H. P.

6. Another important feature of the scheme is to shift the Transformer Station from the head of the Bluff where it is now situated and to reconstruct it at the foot, as an extension of the present generating station. This is calculated to result not only in better efficiency but also in facilitating economical maintenance of plant, etc.

7. After the completion of the first stage of the Krishnarajasagara Dam, the calculated minimum flow available in the river during the summer months is 750 cusecs. The extension now proposed is therefore limited to 27,000 E. H. P. net. With the second stage of the reservoir, the minimum flow available at Sivāsamudram will be 900 cusecs. It will then be possible to generate 32,000 H. P. The proposed work is so arranged that further additions can be undertaken at any time without much material alteration.

8. The VI. Installation of the Cauvery Power Scheme being the most urgent and important of the works of development in the Electrical Department, Government are pleased to accord general administrative sanction to the modified proposals estimated to cost Rs. 32,92,000 which is made up as follows:—

(1) Rs. 11,48,081 for replacing the 11 small turbines reported to be obsolete.

(2) Rs. 21,43,919 for rearranging and extending the capacity of the plant from 22,650 to 30,600 H. P.

The outlay under (1) will be debited to the Depreciation account and that under (2) to the Capital account.

9. The Financial Secretary is requested to provide 5 lakhs of rupees for the work in the capital programme of 1919-20 by a redistribution of the grant of 90 lakhs already provided therein.

10. Before the estimates are finally sanctioned, they will be got examined by a recognised Consulting Engineer in England or America.

11. The Chief Electrical Engineer is, however, authorised to incur an expenditure up to 5 lakhs, being the grant allotted to this work during the current year.

S. CADAMBI,
Secretary to Government,
Public Works Department.

To—The Chief Electrical Engineer to the Government of Mysore.

The Financial Secretary to Government.

• The Comptroller of Mysore.